

# **METHOD AND APPARATUS FOR REGISTER STACK IMPLEMENTATION USING MICRO-OPERATIONS**

## **Abstract of the Invention**

Disclosed are embodiments of an apparatus, system, and method for implementing a register stack using micro-operations. A register stack engine generates a plurality of micro-operations to implement a memory operation in support of register windowing, such as spill or fill to/from a backing store. These micro-operations are inserted into an execution pipeline along with other micro-operations not related to register stack operation.